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<b>14. ABSTRACT</b> Hill Air Force Base (AFB) proposes to construct a 14.6-mile long rail spur connecting the main railroad line at Lakeside, Utah to the missile storage area (MSA) at Oasis, Utah Test and Training Range (UTTR), in the North Range area. A transfer station would also be constructed, where missile motors would be moved from rail cars to trailers. The findings of this EA indicate that the proposed action would not have significant adverse effects on the human environment or any of the environmental resources as described in the EA. Therefore, it is concluded that a Finding of No Significant Impact is justified.						
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Hill Air Force Base, Utah

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*Final*

**Environmental Assessment:  
Proposed Rail Spur,  
Utah Test and Training Range**

March 19, 2012

***Final***  
**Environmental Assessment (EA):  
Proposed Rail Spur,  
Utah Test and Training Range**

**Contract No. FA8201-09-D-0006  
Delivery Order No. 0042**

**Department of the Air Force  
Air Force Materiel Command  
Hill Air Force Base, Utah 84056**

**March 19, 2012**

**Prepared in accordance with the Department of the Air Force Environmental Impact Analysis Process (EIAP) 32 CFR Part 989, Effective July 6, 1999, which implements the National Environmental Policy Act (NEPA), the President's Council on Environmental Quality (CEQ) regulations.**

## EXECUTIVE SUMMARY

### Purpose and Need

The purpose of the proposed action is to construct a 14.6-mile long rail spur connecting the main railroad line at Lakeside, Utah to the missile storage area (MSA) at Oasis, Utah Test and Training Range (UTTR), in the North Range area. A transfer station would also be constructed, where missile motors would be moved from rail cars to trailers.

The nearby thermal treatment unit (TTU) at UTTR (North Range) is the only Department of Defense (DoD) facility that is permitted by federal and state regulations to dispose excess missile motors. The proposed facilities would allow efficient transfer of 1,800 or more missile motors to the MSA for subsequent destruction at the TTU.

### Selection Criteria

The facilities transporting missile motors to the MSA should:

- provide an efficient method of transporting 1,800 or more missile motors to the MSA at Oasis;
- comply with the new Strategic Arms Reduction Treaty (START);
- not encroach upon military training areas; and
- exhibit reasonable construction and operational characteristics.

### Scope of Review

The issues that were identified for detailed consideration are: air quality, solid and hazardous wastes (including liquid waste streams), biological resources, and water quality.

### Alternatives Considered in Detail

Alternative A (No Action Alternative) - Under the no action alternative, a rail spur would not be constructed. Missile motors would be transported over highways in Salt Lake, Tooele, and Box Elder Counties, Utah.

Alternative B (Proposed Action - Construct a Rail Spur at UTTR [North Range]) - The proposed action would include:

- a 14.6-mile long rail spur (located in Box Elder County, Utah) connecting the main railroad line at Lakeside, Utah to the MSA at Oasis; and
- a transfer station where missile motors would be moved from rail cars to trailers. The transfer station would include a structure, heating and cooling systems, a water-based fire suppression system, air compressor, crane, handling equipment, and emergency generators. Trucks would then haul the trailers over existing roads the final 0.2 miles to the MSA.

## Results of the Environmental Assessment

Two alternatives were considered in detail. The results of the environmental assessment are summarized in the following table.

Summary Comparison of Predicted Environmental Effects

Issue	Alternative A No Action	Alternative B Proposed Action
Air Quality	Air emissions from operations would be less than 0.2 tons per year for each criteria pollutant as well as for VOCs.	Temporary air emissions from construction would be less than 14 tons for each criteria pollutant as well as for VOCs.  Air emissions from operations would be less than 0.2 tons per year for each criteria pollutant as well as for VOCs.  Conformity with the Clean Air Act was demonstrated.
Solid and Hazardous Waste	No effects were identified.	If contaminated soils are identified, they would be properly handled during the construction process. No effects were identified for operations.
Biological Resources	No effects were identified.	Related to construction, disturbed habitat would be restored. Kit fox dens, bird nesting sites, and birds protected by the MBTA would be protected. No effects were identified for operations.
Water Quality	No effects were identified.	Related to construction, water quality would be protected by implementing stormwater management practices. No effects were identified for operations.

## Identification of the Preferred Alternative

Hill AFB prefers Alternative B (the proposed action).

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## LIST OF ACRONYMS AND CHEMICAL TERMS

AFB	Air Force Base
AFOSH	Air Force Occupational Safety and Health
AICUZ	Air Installation Compatible Use Zone
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CWA	Clean Water Act
DAQ	Division of Air Quality (Utah)
DoD	Department of Defense
DRMO	Defense Reutilization and Marketing Office
EA	Environmental Assessment
EIAP	Environmental Impact Analysis Process
EIS	Environmental Impact Statement
EISA	Energy Independence and Security Act
EPA	Environmental Protection Agency (United States)
IDT	Interdisciplinary Team
lb	Pound
MBTA	Migratory Bird Treaty Act
MSA	Missile Storage Area
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO <sub>x</sub>	Oxides of Nitrogen
O <sub>3</sub>	Ozone
OSHA	Occupational Safety and Health Administration
PCB	Polychlorinated Biphenyl
PM-2.5	Particulates Smaller Than 2.5 Microns in Diameter
PM-10	Particulates Smaller Than 10 Microns in Diameter
ppm	Parts Per Million
RCRA	Resource Conservation and Recovery Act



SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SOC	Species of Concern
SO <sub>x</sub>	Oxides of Sulfur
SO <sub>2</sub>	Sulfur Dioxide
SSP	Strategic Systems Program
START	Strategic Arms Reduction Treaty
SWPPP	Stormwater Pollution Prevention Plan
TTU	Thermal Treatment Unit
UGS	Utah Geological Survey
US	United States (of America)
USACE	United States Army Corps of Engineers
USAF	United States Air Force
USC	United States Code
UTTR	Utah Test and Training Range
VOC	Volatile Organic Compound

## **1.0 PURPOSE OF AND NEED FOR ACTION**

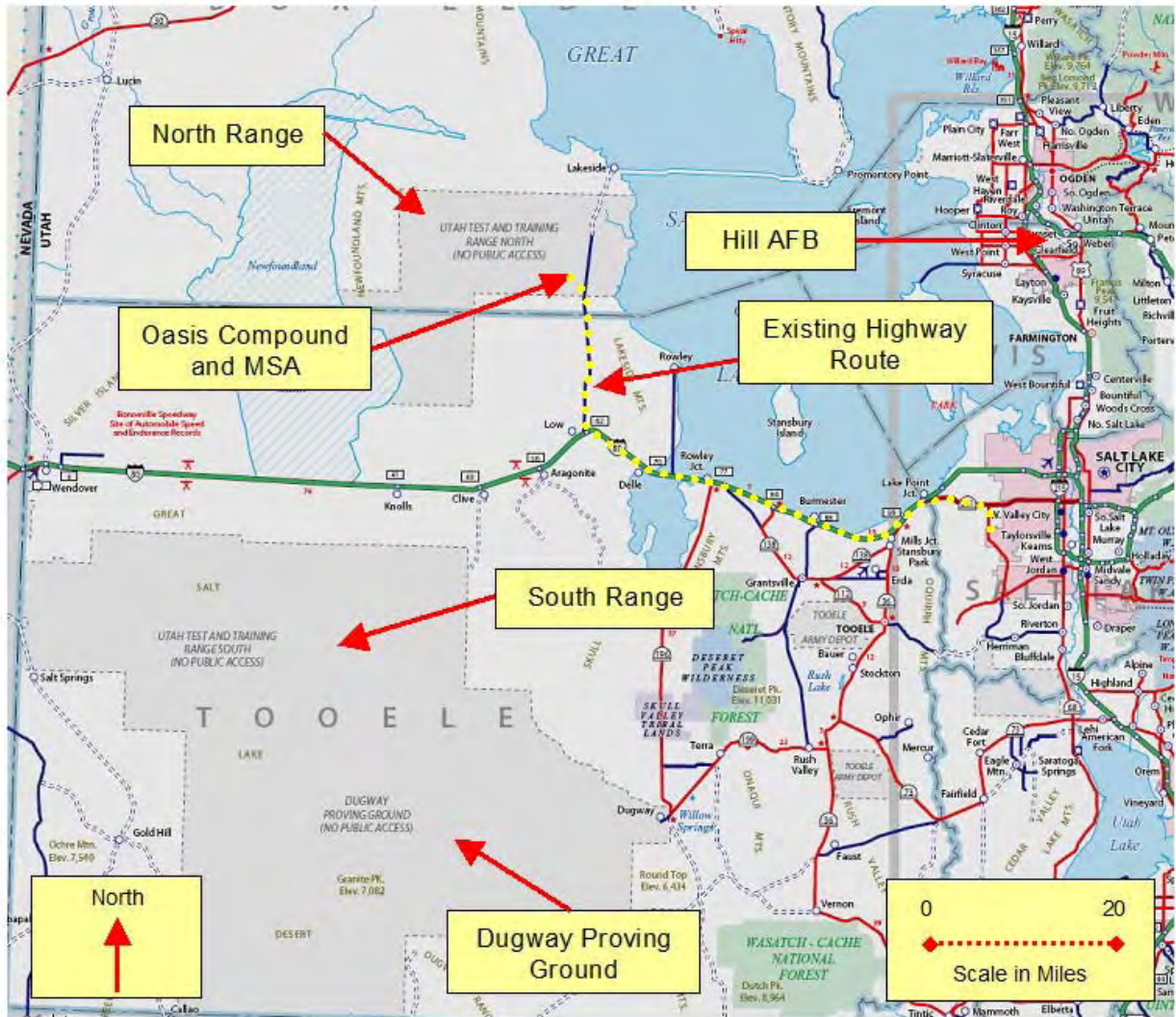
### **1.1 Introduction**

Utah Test and Training Range (UTTR) is located approximately 50 miles west of Hill Air Force Base (AFB) in the Great Basin of northwestern Utah and eastern Nevada. UTTR includes air space and land. It consists of approximately 13,000 square nautical miles of air space. The air space is situated over 2,624 square miles of Department of Defense (DoD) managed land. The DoD land includes Dugway Proving Ground managed by the U.S. Army. 1,490 square miles of DoD land is managed by the United States (US) Air Force (USAF). The Air Force managed land is divided into three separate areas referred to as ranges. They are designated as the North, South, and Wendover Ranges, of which the North and South Ranges are located in Utah (Figure 1). The North Range is a primary site for testing and storing advanced strategic weapons. This includes munitions and propellants. It also has the Thermal Treatment Unit (TTU) that is used for munition disposal. The TTU is the only DoD facility that is permitted by federal and state regulations to dispose excess military missile motors.

Located on the northeastern portion of the North Range is a manned compound designated as Oasis. A missile storage area (MSA) is located near the Oasis Compound. Oasis is an operations center. It includes billeting, dining, recreational, storage, and office facilities. It is also an equipment maintenance center. Generators providing emergency power to the North Range are located here. It is home to civil engineering support functions, which include storage, test firing, dissection, and disposal of missile motors.

Current missile storage at the MSA is limited to items containing Class 1.3 propellant. Future missions will require storing a large number of larger and heavier items (41 tons per missile motor) containing more energetic Class 1.1 propellant. Highway transport of 1,800 or more stage one (Class 1.1 propellant) and stage two (Class 1.3 propellant) missile motors would be slow and inefficient compared to transport by rail. Rail access is proposed to transport these items to the MSA.

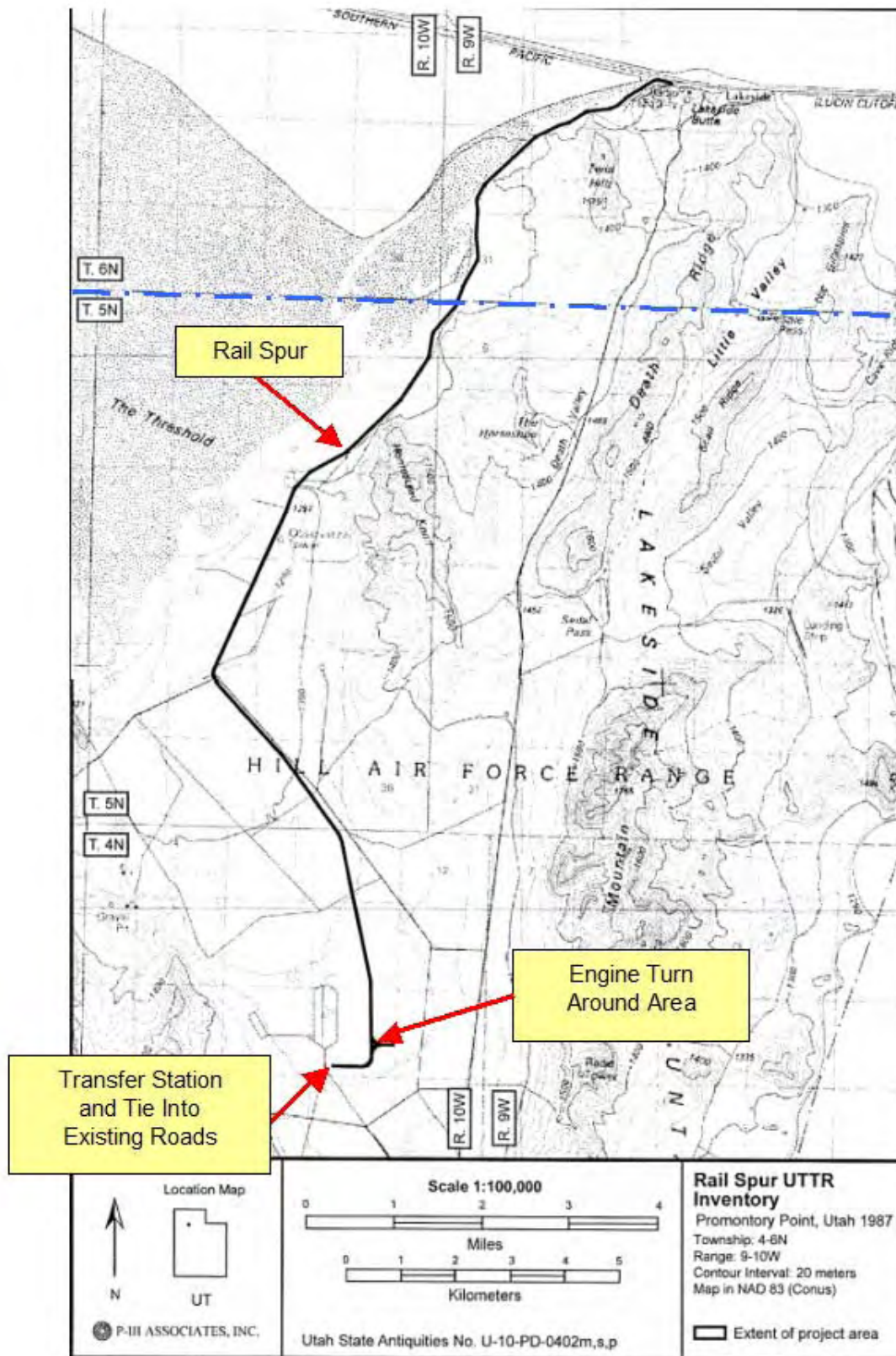
Figure 1 shows the location of the Oasis Compound and the MSA in relation to the North Range, South Range, Dugway Proving Ground, regional highways, and Hill AFB.



**Figure 1: Location of Oasis Compound and MSA**

## 1.2 Proposed Action

The proposed action is to construct a 14.6-mile long rail spur connecting the main railroad line at Lakeside, Utah to the MSA at Oasis (Figure 2).



**Figure 2: Areas Affected by the Proposed Action**

The proposed action would consist of:

- Constructing a 14.6-mile long rail spur connecting the main railroad line at Lakeside, Utah to the MSA at Oasis.
- Constructing a transfer station where missile motors would be moved from rail cars to trailers. Trucks would then haul the trailers over existing roads the final 0.2 miles to the MSA.

### **1.3 Need for the Proposed Action**

The proposed action is needed due to the following conditions:

- The TTU must be used to dispose the excess missile motors. It is the only DoD facility that is permitted by federal and state regulations to accomplish this activity.
- Future missions will require transporting a large number of larger and heavier items (41 tons per missile motor) containing more energetic Class 1.1 propellant to the MSA at Oasis.
- The US Navy's Strategic Systems Program (SSP) managers have analyzed options for transporting large missile motors containing Class 1.1 and Class 1.3 propellant to the missile storage area at Oasis. When loaded, containers that are qualified to hold stage one missile motors containing 41 tons of Class 1.1 propellant are extremely large and heavy. In addition to holding a missile motor, each container must be provided with armored plating and temperature control systems for heating and cooling. Special railcars have been constructed to accommodate these design criteria. On the highway, each missile motor would constitute an oversize load and would require special escort vehicles. Highway transport of 1,800 or more stage one (Class 1.1 propellant) and stage two (Class 1.3 propellant) missile motors would be slow and inefficient compared to transport by rail due to additional handling and time-consuming highway escort requirements.

### **1.4 Purposes of the Proposed Action**

The purposes of the proposed action are the following:

- Provide a rail spur to transport missile motors.
- Provide a transfer station where missile motors would be moved from rail cars to trailers.
- Ensure the MSA and TTU can support future mission requirements.

### **1.5 Relevant EISs, EAs, Laws, Regulations, Plans, and Other Documents**

During the scoping process, no relevant environmental impact statements (EISs) were identified. One related environmental assessment (EA) was identified, *Environmental Assessment:*

*Proposed Missile Storage Structures and Related Facilities, Utah Test and Training Range, Utah* (in progress).

The following federal, state, and local laws and regulations apply to the proposed action:

- The National Environmental Policy Act (NEPA), Title 42 of the United States Code (USC) Section 4321 *et seq.*
- Council on Environmental Quality regulations, Title 40 of the Code of Federal Regulations (CFR) Parts 1500-1508.
- USAF-specific requirements contained in 32 CFR Part 989, Environmental Impact Analysis Process (EIAP).
- Safety guidelines of the Occupational Safety and Health Administration (OSHA).
- Relevant Air Force Occupational Safety and Health (AFOSH) standards.
- Utah's fugitive emissions and fugitive dust rules (Utah Administrative Code [UAC] Section R307-309).
- Utah's State Implementation Plan ([SIP] UAC Section R307-110), which complies with the General Conformity Rule of the Clean Air Act (CAA), Section 176 (c).
- Determining Conformity of Federal Actions to State or Federal Implementation Plans, 40 CFR Part 93.154.
- USAF *Conformity Guide*, 1995.
- Utah Asbestos Rules, UAC, Section R307-801.
- The Resource Conservation and Recovery Act (RCRA), 42 USC Chapter 82, and regulations promulgated thereunder, 40 CFR Part 260 *et seq.*
- Federal facility agreement dated April 10, 1991, under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 42 USC Section 9601 *et seq.*
- Utah hazardous waste management regulations contained in UAC Section R315, and the Hill AFB *Hazardous Waste Management Plan* dated May 2001, and subsequent versions.
- The Clean Water Act (CWA), 33 USC Section 1251 *et seq.*, and Utah statutes and regulations promulgated thereunder.
- The Energy Independence and Security Act (EISA) of 2007, Public Law No. 110-140, Sec. 438, Storm Water Runoff Requirements for Federal Development Projects.
- Migratory Bird Treaty Act (MBTA), 16 USC Sections 703-712 *et seq.*



- Bald and Golden Eagle Protection Act, 16 USC Sections 668-668c *et seq.*
- The National Historic Preservation Act (NHPA) of 1966, as amended 16 USC Section 470 *et seq.*

Two Hill AFB resource management plans apply to the proposed action:

- The Hill AFB *Integrated Natural Resources Management Plan*, dated August 2007, and subsequent versions.
- The Hill AFB *Integrated Cultural Resources Management Plan*, dated January 2007, and subsequent versions.

The following international treaty applies to the proposed action:

- *Treaty Between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms*, (US 2010). This treaty is commonly known as the new Strategic Arms Reduction Treaty (START).

## **1.6 Decisions That Must Be Made**

Hill AFB must decide which of the following alternatives to implement:

- Not construct a rail spur and transfer station (no action).
- Construct a rail spur and transfer station (proposed action).
- If the rail spur and transfer station are constructed, then a location must be selected (see Section 2.2).

## **1.7 Scope of this Environmental Analysis**

The scope of the environmental analysis is to consider issues related to the proposed action and the reasonable alternatives identified within this document.

### **1.7.1 History of the Planning and Scoping Process**

Scoping discussions were conducted by the 75th Civil Engineering Group, Environmental Division (75 CEG/CEV). Participants in the EIAP Interdisciplinary Team (IDT) included proponents of the proposed action, the EIAP manager, resource managers, the US Navy's SSP managers, and the authors of this document. During the scoping process, the EIAP/IDT considered and addressed the following issues:

- air quality;
- solid and hazardous wastes (including liquid waste streams);
- biological resources;

- geology and surface soils;
- water quality;
- cultural resources;
- occupational safety and health;
- air installation compatible use zone (AICUZ); and
- socioeconomic resources.

### **1.7.2 Issues Studied in Detail**

The following issues were identified by the EIAP/IDT for detailed consideration and will be presented in Sections 3 and 4:

#### **Air Quality** (attainment status, emissions, Utah's SIP)

Air emissions would be produced by construction equipment. Operating the proposed action would create air emissions. Air quality effects are discussed in Section 4 of this document.

#### **Solid and Hazardous Wastes** (materials to be used, stored, recycled, or disposed, including liquid waste streams; existing asbestos, lead-based paint, mercury, and polychlorinated biphenyls [PCBs])

During construction activities, solid wastes would be generated, and other hazardous wastes might be generated that would require proper treatment and/or disposal. Additional hazardous wastes could be generated if a spill of fuel, lubricants, or construction-related chemicals were to occur.

Operating the proposed action would not be expected to create solid and hazardous wastes. Effects related to solid and hazardous wastes are discussed in Section 4 of this document.

#### **Biological Resources** (flora and fauna including threatened, endangered, sensitive species; wetlands; floodplains)

Approximately 353 acres of land would be affected by the proposed action. Effects related to biological resources are discussed in Section 4 of this document.

The scoping discussions did not identify any issues related to wetlands or floodplains.

#### **Water Quality** (surface water, groundwater, water quantity, wellhead protection zones)

Approximately 353 acres of land would be affected by the proposed action. The proposed action would be subject to stormwater compliance requirements both during the construction period and during operations.



The scoping discussions did not identify other issues related to quantity of water or wellhead protection zones.

Effects related to water quality are discussed in Section 4 of this document.

Liquid waste streams created during construction are included in the discussions related to solid and hazardous wastes (Section 4 of this document).

### **1.7.3 Issues Eliminated From Further Study**

The following issues were considered by the EIAP/IDT and were not carried forward for detailed consideration in Sections 3 and 4:

**Geology and Surface Soils** (seismicity, topography, minerals, geothermal resources, land disturbance, known pre-existing contamination)

The scoping discussions did not identify any issues related to seismicity, topography, minerals, or geothermal resources.

Clearing and grading activities would be required for the proposed rail spur and transfer station. Excavations would be necessary at the transfer station to install footings and buried utilities consisting of water, electricity, and telecommunication lines. Discussions related to preventing soil erosion (stormwater pollution prevention) are addressed under water quality effects (Section 4 of this document).

Contamination of shallow soil is not known to exist in the vicinity of the proposed action, but the potential to encounter contaminated soil does exist. Potential discovery of suspicious soils during excavation is addressed under solid and hazardous wastes (Section 4 of this document).

**Cultural Resources** (archaeological, architectural, traditional cultural properties)

Approximately 353 acres of land would be affected by the proposed action. An intensive cultural resources survey of the entire 353 acres was conducted in the summer of 2010 (P-III 2010). One prehistoric site was documented in the project area on lands managed by the State of Utah School and Institutional Trust Lands Administration. The site was determined ineligible for listing on the National Register of Historic Places. The State Historic Preservation Office (SHPO) concurred with this determination and with the finding of no effect to historic properties (Appendix A). Hill AFB initiated a formal consultation process with 19 American Indian Tribes regarding the proposed action. One response, with no objections being noted, was received (Appendix B).

Given the recent survey and lack of previous findings, the potential for historic properties is extremely low. However, if any such properties were to be found during construction, ground-disturbing activities in the immediate vicinity would cease, the Hill AFB Cultural Resources Program would be notified, and unanticipated discovery of archaeological deposits procedures would be implemented with direction from the Hill AFB Cultural Resources Program in accordance with Standard Operating Procedure 5 in the *Hill AFB Integrated Cultural Resources Management Plan* (Hill 2007a).

**Occupational Safety and Health** (physical and chemical hazards, radiation, explosives, bird and wildlife hazards to aircraft)

Throughout the construction phase of the project, Hill AFB contractors would follow OSHA safety guidelines as presented in the CFR. Hazardous materials that could be used during construction are included in the discussions related to solid and hazardous wastes (Section 4 of this document).

Related to Hill AFB military personnel and civilian employees, the Bioenvironmental Engineering Flight (75 AMDS/SGPB) is responsible for implementing AFOSH standards. The AFOSH program addresses (partial list): hazard abatement, hazard communication, training, personal protective equipment and other controls to ensure that occupational exposures to hazardous agents do not adversely affect health and safety, and acquisition of new systems.

The scoping discussions did not identify any issues related to occupational safety and health that would not be routinely addressed by OSHA rules and/or the Bioenvironmental Engineering Flight.

**AICUZ** (noise, accident potential, airfield encroachment)

The scoping discussions did not identify any issues related to noise, aircraft accident potential, or airfield encroachment.

**Socioeconomic Resources** (local fiscal effects including employment, population projections, and schools)

Opportunities would exist for local construction workers if the proposed action is constructed. Operating the proposed action would create few if any new jobs. The scoping discussions did not identify any issues related to population projections or schools.

## **1.8 Applicable Permits, Licenses, and Other Coordination Requirements**

Obtaining, modifying, and/or complying with the following permits would be required to implement the proposed action.

- The UTTR Title V Operating Permit (Permit Number: 300036002, and subsequent versions). See Section 4.2.1 for additional details.
- Utah's Storm Water General Permit for Construction Activities permit number UTR300000, dated July 1, 2008, and subsequent versions. See Section 4.2.3 for additional details.

The proponents would coordinate with the Hill AFB hazardous materials program manager (75 CEG/CEVC) to discuss hazardous materials brought on base to construct the proposed action. See Section 4.2.2 for additional details.

## **2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION**

### **2.1 Introduction**

This section describes each of the alternatives considered. It documents the process used to develop the alternatives and lists the selection criteria. It presents a comparison matrix of the predicted achievement of project objectives for each of the various alternatives. This section also identifies the Air Force's preferred alternative.

### **2.2 Description of Alternatives**

#### **2.2.1 Alternative A: No Action**

Under the no action alternative, a rail spur would not be constructed. Missile motors would be transported over highways in Salt Lake, Tooele, and Box Elder Counties, Utah. Neither the needs in Section 1.3 nor the purposes in Section 1.4 would be satisfied.

#### **2.2.2 Alternative B: Proposed Action - Construct a Rail Spur at UTTR (North Range)**

The proposed action is to construct a rail spur at UTTR (North Range) connecting the main railroad line at Lakeside, Utah to the MSA at Oasis. The proposed action would consist of constructing:

- A 14.6-mile long rail spur (located in Box Elder County, Utah) connecting the main railroad line at Lakeside, Utah to the MSA at Oasis.
- A transfer station where missile motors would be moved from rail cars to trailers. The transfer station would include a structure, heating and cooling systems, a water-based fire suppression system, air compressor, crane, handling equipment, and emergency generators. Trucks would then haul the trailers over existing roads the final 0.2 miles to the MSA.

#### **2.2.3 Alternative C: More Direct Alignment From Lakeside to MSA**

This alternative is similar to the proposed action, but the rail spur alignment would be as appears (orange line) in Figure 3.

#### **2.2.4 Alternative D: Alignment Adjacent to County Roads**

This alternative is similar to the proposed action, but the rail spur alignment would be as appears (green line) in Figure 3.



**Figure 3: Alternate Rail Spur Alignments**

## **2.3 Process Used to Develop the Alternatives**

As discussed in Sections 1.2, 1.3, and 1.4, Hill AFB proposes to construct a rail spur and transfer station at UTTR (North Range). The proposed rail spur and transfer station would address the needs discussed in Section 1.3 and the purposes stated in Section 1.4.

Hill AFB planners, engineers, and Facility Working Group explored other alternatives. The feasibility of developing other locations for the rail spur was compared to the selection criteria. The option to take no action was also considered.

### **2.3.1 Alternative Selection Criteria**

The following selection criteria were used to develop the proposed action and alternatives. The method of transporting missile motors to the MSA at Oasis should:

- Provide an efficient method of transporting 1,800 or more missile motors to the MSA at Oasis.
- Comply with the New START.

The New START was signed by the United States of America and the Russian Federation on April 8, 2010. President Obama signed the instrument of ratification on February 2, 2011. The treaty limits the number of missile launchers, thereby creating a surplus of aged missile motors. Rather than store aging missile motors indefinitely, it is more efficient to eliminate them. This includes the larger and heavier missile motors containing more energetic Class 1.1 propellant.

- Not encroach upon military training areas.

Most of the North Range has been allocated for military aircraft and land-based training activities. Three potential rail spur alignments were identified that successfully addressed this land-use constraint.

- Exhibit reasonable construction and operational characteristics.

The selected rail spur alignment should not present difficult construction issues or be difficult to operate. Difficult construction issues would include traversing wetlands or bodies of surface water. Operationally, the US Army Corps of Engineers (USACE) suggests a limit of 1.5 percent grades and advises that grades of two percent to three percent are very steep, to be avoided if possible; no mention is made of grades over three percent (*Technical Instructions, Railroad Design and Rehabilitation* - TI 850-02, USACE, April, 2000).

### **2.3.2 Alternatives Eliminated From Detailed Consideration**

In addition to the proposed action, two potential rail spur alignments were identified that would not encroach upon military training areas.

#### **Alternative C: More Direct Alignment From Lakeside to MSA**

A more direct line from Lakeside to the MSA was evaluated. This alignment would pass through an area where water ponds during the winter and spring months. The alignment was determined not to be a good alternative compared to a route traversing dry areas.

#### **Alternative D: Alignment Adjacent to County Roads**

Constructing the rail spur adjacent to existing county roads was evaluated. This alignment was eliminated due to exhibiting a four percent grade over some sections of the route. It would violate USACE technical instructions.

## **2.4 Summary Comparison of the Alternatives and Predicted Achievement of the Purposes of the Project**

### **2.4.1 Summary Comparison of Project Alternatives**

The no action alternative (Alternative A) would be to continue current operations using existing transportation mechanisms (the slower and less efficient highway transport of 1,800 or more missile motors).

Considering implementation of Alternatives B and C, only Alternative B (the proposed action) would fully satisfy the selection criteria from Section 2.3.1.

## 2.4.2 Predicted Achievement of Project Objectives

	Alternatives from Section 2.2			
	A  No Action	B  Proposed Action	C More Direct Alignment from Lakeside	D Adjacent to County Roads
<b>Purposes of the Proposed Action from Section 1.4</b>				
Provide a rail spur to transport missile motors	No	Yes	Yes	Yes
Provide a transfer station where missile motors would be moved from rail cars to trailers	Not Applicable	Yes	Yes	Yes
Ensure the MSA and TTU can support future mission requirements	Yes	Yes	Yes	Yes
<b>Additional Selection Criteria from Section 2.3.1</b>				
Provide an efficient method of transporting 1,800 or more missile motors to the MSA at Oasis	No	Yes	Yes	Yes
Comply with the New START	Yes	Yes	Yes	Yes
Not encroach upon military training areas	Yes	Yes	Yes	Yes
Exhibit reasonable construction and operational characteristics	Yes	Yes	No	No

**Table 1: Predicted Achievement of Project Objectives**

## 2.5 Identification of the Preferred Alternative

Alternative B (the proposed action) is the preferred alternative. It is the alternative that best satisfies the identified needs, purposes, and selection criteria.

## **3.0 AFFECTED ENVIRONMENT**

### **3.1 Introduction**

Section 3 of this document discusses the existing conditions of the potentially affected environment, establishing a resource baseline against which the effects of the various alternatives can be evaluated. It presents relevant facilities and operations, environmental issues, pre-existing environmental factors, and existing cumulative effects due to human activities in the vicinity of the proposed action or the alternative locations.

Issues discussed during scoping meetings, but eliminated from detailed consideration (see Section 1.7.3) include:

- geology and surface soils (seismicity, topography, minerals, geothermal resources, land disturbance, known pre-existing contamination);
- cultural resources (archaeological, architectural, traditional cultural properties);
- occupational safety and health (physical and chemical hazards, radiation, explosives, bird and wildlife hazards to aircraft);
- AICUZ (noise, accident potential, airfield encroachment); and
- socioeconomic resources (local fiscal effects including employment, population projections, and schools).

### **3.2 Description of Relevant Facilities and Operations**

As stated above, the existing transportation mechanisms do not provide an efficient method of transporting 1,800 or more missile motors to the MSA at Oasis. The Air Force is proposing to replace existing missile storage igloos within the MSA. The environmental effects of that proposal are being analyzed in a separate document. The missile motors are to be transported, then stored while awaiting disposal at the TTU. No other relevant facilities or operations were identified.

### **3.3 Description of Relevant Affected Issues**

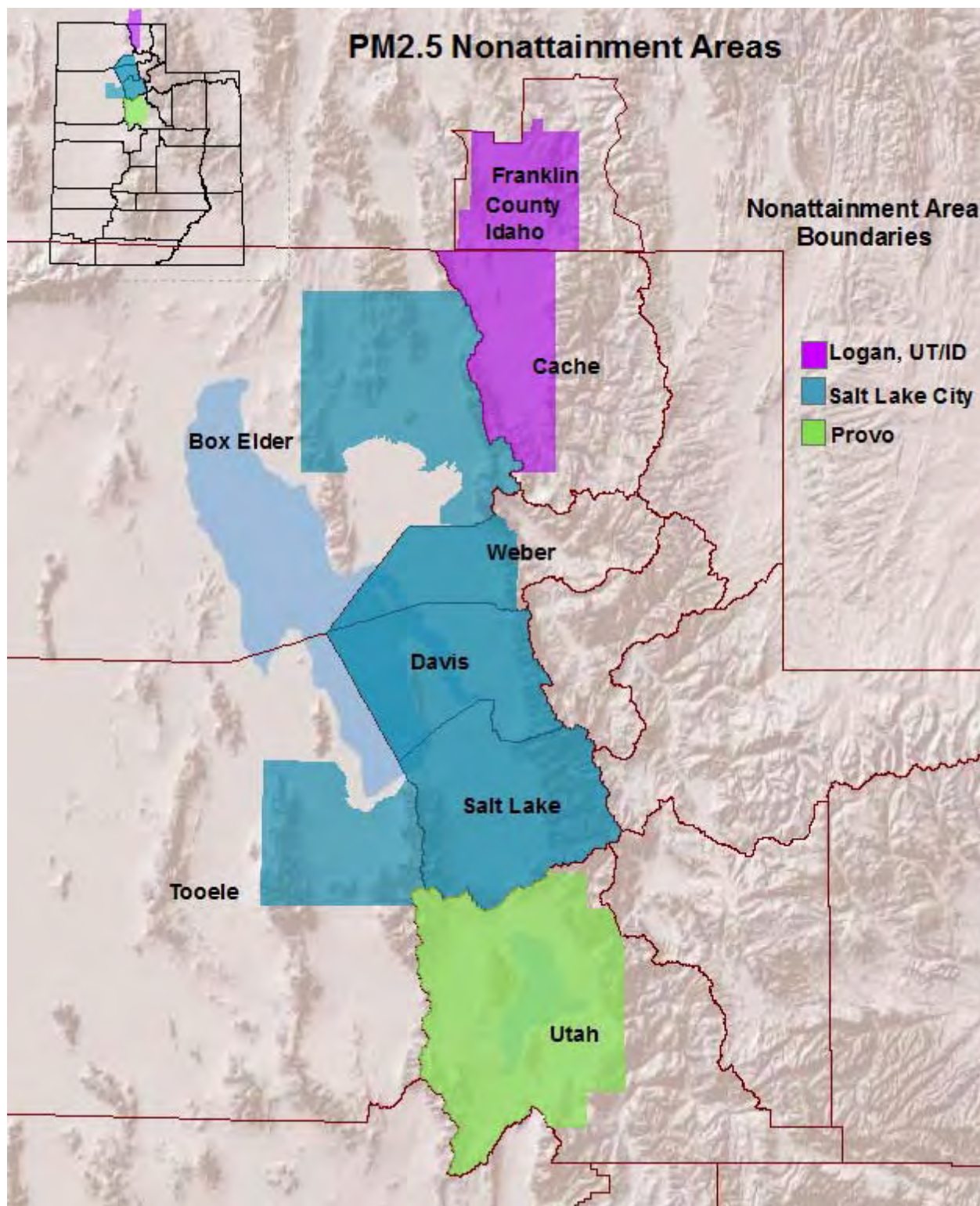
#### **3.3.1 Air Quality**

Compared to federal clean air standards, Utah's Division of Air Quality (DAQ) reports five non-attainment and/or maintenance area designations (Figures 4-8 [DAQ 2011]). Non-attainment areas fail to meet national ambient air quality standards (NAAQS) for one or more of the criteria pollutants: oxides of nitrogen (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), ozone (O<sub>3</sub>), particulates less than 10 microns in diameter (PM-10), particulates less than 2.5 microns in diameter (PM-2.5), carbon monoxide (CO), and lead. Maintenance areas were once designated as non-attainment, but are now consistently meeting the NAAQS.



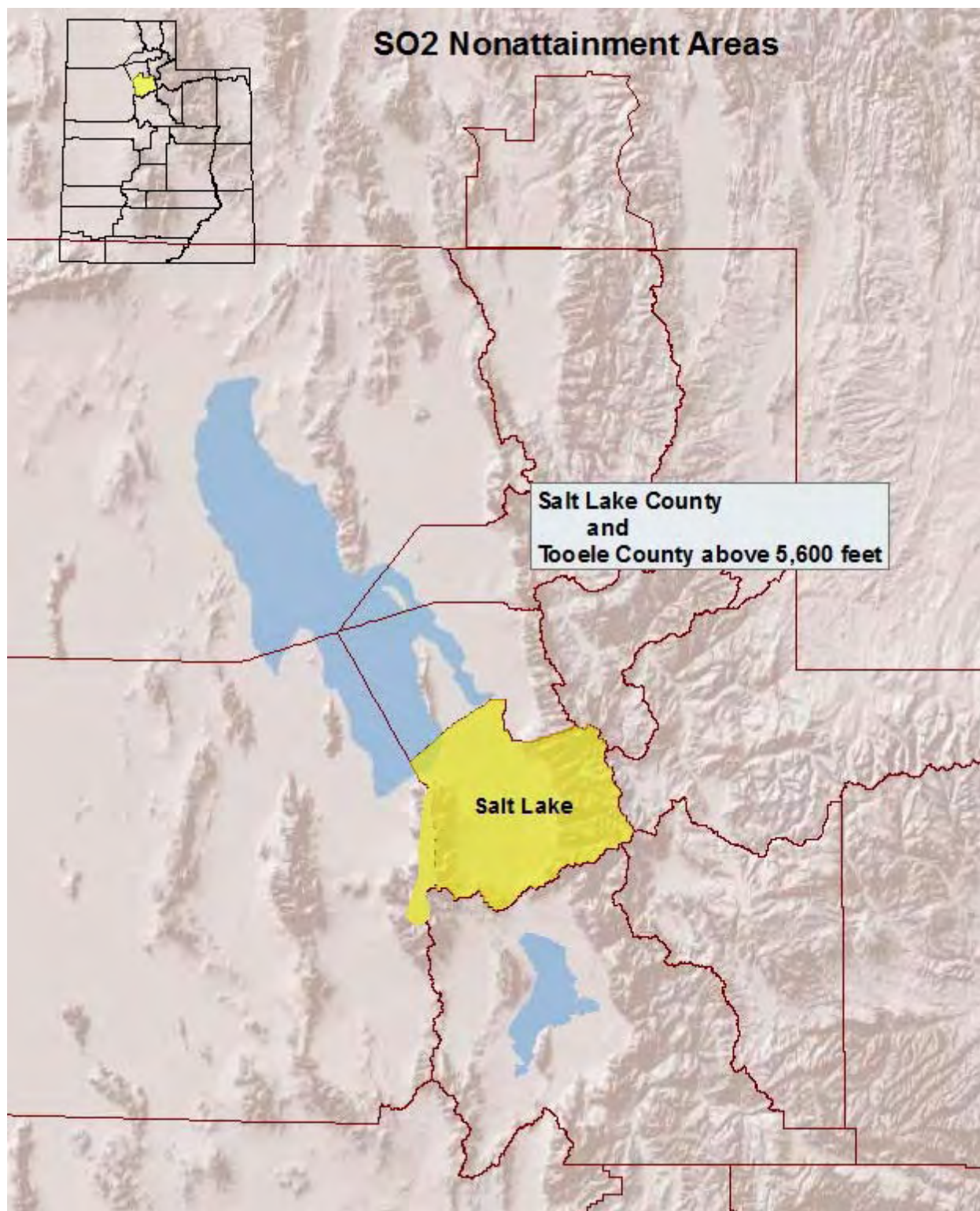


**Figure 4: State of Utah Areas of Non-Attainment for PM-10**



**Figure 5: State of Utah Areas of Non-Attainment for PM-2.5**



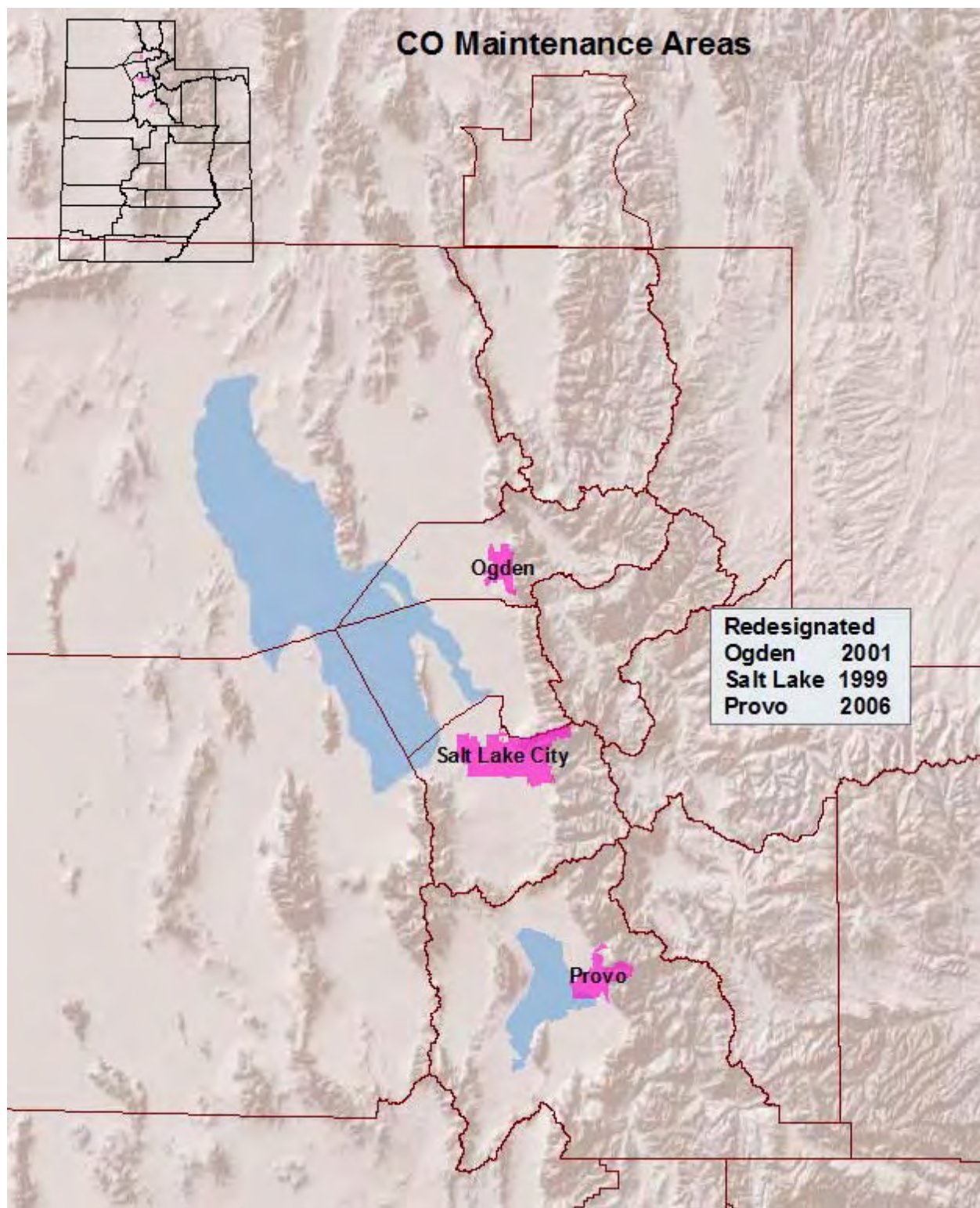


**Figure 6: State of Utah Areas of Non-Attainment for SO<sub>2</sub>**



**Figure 7: State of Utah Maintenance Areas for Ozone**





**Figure 8: State of Utah Maintenance Areas for CO**

Table 2 presents annual emission estimates for criteria pollutants and volatile organic compounds (VOCs) for Salt Lake, Davis, Weber, Tooele, and Box Elder Counties. These estimates were based on the most recent data, the DAQ triennial inventory for calendar year 2008 (DAQ 2011).

Location	Emissions By Pollutant (tons/year)					
	CO	NOx	PM-10	PM-2.5	SOx	VOC
Salt Lake County	186,179	31,001	17,751	3,757	6,315	41,861
Davis County	53,384	8,173	5,279	1,071	1,048	17,566
Weber County	42,534	5,581	3,970	936	154	14,369
Tooele County	32,488	6,971	5,502	1,246	280	43,061
Box Elder County	49,198	6,089	5,724	1,652	191	40,140

**Table 2: Baseline Air Pollutants**

The US Navy has not begun transporting the 1,800 or more stage one and stage two missile motors to the MSA at Oasis. There are no existing operational air emissions related to this activity.

### **3.3.2 Solid and Hazardous Wastes**

In general, hazardous wastes include substances that, because of their concentration, physical, chemical, or other characteristics, may present substantial danger to public health or welfare or to the environment when released into the environment or otherwise improperly managed.

Potentially hazardous and hazardous wastes generated at Oasis are managed as specified in the *Hill AFB Hazardous Waste Management Plan* with oversight by personnel from the Environmental Management Division and Defense Reutilization and Marketing Office (DRMO). Hazardous wastes at Oasis are properly stored during characterization, and then manifested and transported off site for treatment and/or disposal.

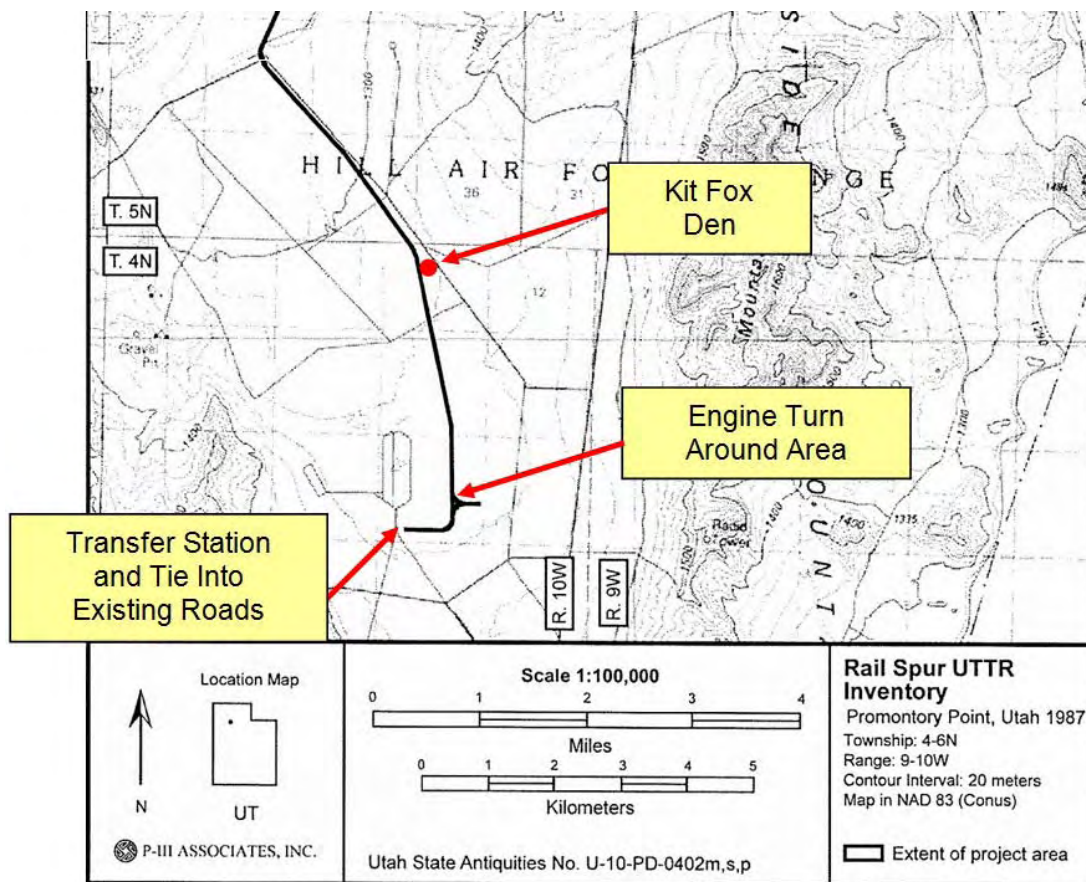
The US Navy has not begun transporting the 1,800 or more stage one and stage two missile motors to the MSA at Oasis. There are no existing solid and hazardous wastes related to this activity.

### **3.3.3 Biological Resources**

The dominant habitat types within the proposed rail spur corridor are Black Greasewood and Shadscale/Cheatgrass. These two habitat types comprise approximately 40 to 70 percent of the total cover of plant species in the corridor, with litter, forbs, and other grasses making up the remainder.

There are no known federal or state threatened or endangered species that occur within the proposed rail spur corridor. However, there are wildlife species of concern (SOC) present, which appear on the Utah sensitive species list and are protected by the Utah Wildlife Code. SOC are species for which there is credible scientific evidence to substantiate a threat to population viability.

Kit foxes (*Vulpes macrotis*) are presently on the Utah SOC list. Kit foxes are one of the few canids to use their dens year-round. Research suggests that kit foxes are highly sensitive to den disturbances while having and raising their young. Currently, there is an active kit fox den located adjacent to the corridor of the proposed rail spur project. The geographic coordinates for the active den are 41° 05' 42.1" North, 112° 56' 38.5" West (Figure 9).



**Figure 9: Location of the Kit Fox Den**

In conjunction with the SOC list there is a target species list. This list contains species that are vulnerable to being listed as SOC, or are indicator species. The following target bird species could be present at times in the vicinity of the proposed rail spur corridor (Table 3).

Common name	Scientific name
Brewer's Sparrow	<i>Spizella breweri</i>
Black-throated Sparrow	<i>Amphispiza bilineata</i>
Loggerhead Shrike	<i>Lanius ludovicianus</i>
Sage Thrasher	<i>Orescoptes montanus</i>
Sage Sparrow	<i>Amphispiza belli</i>
Western Meadowlark	<i>Sturnella neglecta</i>
Horned Lark	<i>Eremphila alpestris</i>

**Table 3: Potential Target Bird Species**

The proposed rail spur corridor lies within a flyway for migratory birds. The MBTA makes it unlawful to take, kill, or harass any species of migratory bird, including raptors, without the proper state and federal permits. Permits issued by the US Fish and Wildlife Service are required to take, possess, transport, and dispose of migratory birds, bird parts, feathers, nests, or eggs.

#### **3.3.4 Water Quality**

No surface water bodies are present within the proposed rail spur corridor. Precipitation is usually short-lived and generates only small quantities of water in this arid environment (approximately five inches per year).

Groundwater pumped from wells at Oasis contains from 5,000 to 10,000 parts per million (ppm) of total dissolved solids, which makes the water unsuitable for human consumption or other uses without treatment. This groundwater is treated using a reverse osmosis system. The major constituents are calcium, potassium, magnesium, and sodium bicarbonate.

#### **3.4 Description of Relevant Pre-Existing Environmental Factors**

During scoping discussions and subsequent analysis, no pre-existing environmental factors (e.g., hurricanes, tornados, floods, droughts) were identified for the proposed action.

#### **3.5 Description of Areas Related to Cumulative Effects**

For air quality, the area related to cumulative effects would include Salt Lake, Tooele, and Box Elder Counties.

For solid and hazardous wastes, biological resources, and water quality, the area related to cumulative effects would be UTTR (North Range).



## 4.0 ENVIRONMENTAL CONSEQUENCES

### 4.1 Introduction

This section discusses effects to the resources that were identified for detailed analysis in Section 1.7.2, and for which existing conditions were presented in Section 3.3. For each of these resources, the following analyses are presented:

- direct, indirect, and cumulative effects of no action (Alternative A); and
- direct, indirect, and cumulative effects of the proposed action (Alternative B).

### 4.2 Predicted Effects to Relevant Affected Resources

#### 4.2.1 Predicted Effects to Air Quality

##### 4.2.1.1 Alternative A: No Action

Transporting missile motors over highways from Magna, Utah to Oasis would generate air emissions from the internal combustion engines of diesel trucks and gasoline powered escort vehicles. Assumptions and estimated emissions for operating the no action alternative are listed in Table 4.

Data Assumptions							
		Emission Factor (grams/mile)					
Equipment Type		CO	NO <sub>x</sub>	PM-10	PM-2.5	SO <sub>2</sub>	VOC
Diesel Semi Truck and Trailer		3.21	12.60	0.36	0.35	n/a	0.55
Gasoline Pickup Truck		15.70	1.22	0.01	0.01	n/a	1.61
No Action (Highway Transport)							
EQUIPMENT	MILES	Emissions (lb/year)					
TYPE	PER YEAR	CO	NO <sub>x</sub>	PM-10	PM-2.5	SO <sub>2</sub>	VOC
Diesel Semi Truck and Trailer	4608	32.6	128.0	3.7	3.5	n/a	5.6
Gasoline Pickup Truck	9216	319.0	24.8	0.1	0.1	n/a	32.7
TOTAL ESTIMATED EMISSIONS (lb/year)		351.6	152.8	3.8	3.7	n/a	38.3
TOTAL ESTIMATED EMISSIONS (tons/year)		0.18	0.08	0.00	0.00	n/a	0.02
Emission factors based on USEPA 2005 Emission Facts, which used EPA's MOBILE6 model							
Estimated mileage based on discussions with Bill Helmrich, US Navy Strategic Systems Program Office							

**Table 4: Operational Air Emissions for the No Action Alternative**

#### Indirect Effects

During scoping and the detailed analysis, no indirect effects related to air quality were identified for the no action alternative.

### Cumulative Effects

Comparing existing emissions for Salt Lake, Tooele, and Box Elder Counties (Table 2) to predicted emissions for the no action alternative, no significant cumulative effects related to air quality were identified for this alternative.

#### **4.2.1.2 Alternative B: Proposed Action**

### Direct Effects Due to Construction

**Fugitive Dust:** Fugitive emissions from construction activities would be controlled according to UAC Section R307-205, *Emission Standards: Fugitive Emissions and Fugitive Dust* and the Hill AFB *Fugitive Dust Plan*. Good housekeeping practices would be used to maintain construction opacity at less than 20 percent. Haul roads would be kept wet. Any soil that is deposited on nearby paved roads by construction vehicles would be removed from the roads and either returned to the site or placed in an appropriate disposal facility.

**Heavy Equipment:** The internal combustion engines of heavy equipment would generate air emissions. Assumptions and estimated emissions for constructing the proposed rail spur are listed in Table 5.

Data Assumptions							
Equipment Type	Emission Factor (lb/hr)						
	CO	NOx	PM-10	PM-2.5	SO <sub>2</sub>	VOC	
Diesel Water Truck	1.37	3.63	0.27	0.26	0.49	0.29	
Diesel Dump Truck	1.37	3.63	0.27	0.26	0.49	0.29	
Diesel Excavator	0.86	3.04	0.21	0.21	0.49	0.22	
Diesel Graders	0.90	3.13	0.22	0.21	0.49	0.23	
Construct Rail Spur							
EQUIPMENT	HOURS	Emissions (lb)					
TYPE	OF USE	CO	NOx	PM-10	PM-2.5	SO <sub>2</sub>	VOC
Diesel Water Truck	640	876.2	2323.8	173.5	169.3	313.2	186.2
Diesel Dump Truck	2560	3504.8	9295.4	694.2	677.3	1252.9	745.0
Diesel Excavator	1280	1100.5	3894.2	270.9	262.4	626.5	287.8
Diesel Graders	3840	3454.0	12012.9	838.1	812.7	1879.4	888.9
TOTAL ESTIMATED EMISSIONS (lb)		8935.6	27526.4	1976.8	1921.7	4072.0	2108.0
TOTAL ESTIMATED EMISSIONS (tons)		4.47	13.76	0.99	0.96	2.04	1.05
Emission factors based on US Department of Homeland Security modeling, which used EPA's NONROAD2005 model							
Hours of use based on estimates from Everett Reynolds, 75 CEG/CEP project manager							

**Table 5: Heavy Equipment Emissions for New Construction**

### Direct Effects Due to Operations

Transporting missile motors by rail from Magna, Utah to Oasis would generate air emissions from the internal combustion engines of diesel locomotives. At the MSA, generators would be used to power an air pallet that facilitates handling of the missile motors. Trucks would then haul the trailers over existing roads the final 0.2 miles to the MSA. Assumptions and estimated emissions for operating the proposed action are listed in Table 6.

Data Assumptions							
Emission Factor (grams/(ton-mile))							
Equipment Type	CO	NO <sub>x</sub>	PM-10	PM-2.5	SO <sub>2</sub>	VOC	
Diesel Locomotive	0.067	0.676	0.017	0.016	0.005	0.026	
Emission Factor (grams/hour)							
Equipment Type	CO	NO <sub>x</sub>	PM-10	PM-2.5	SO <sub>2</sub>	VOC	
Diesel CAT 3306 Generator	2.49	3.95	0.48	0.47	0.54	0.80	
Emission Factor (grams/mile)							
Equipment Type	CO	NO <sub>x</sub>	PM-10	PM-2.5	SO <sub>2</sub>	VOC	
Diesel Semi Truck and Trailer	3.21	12.60	0.36	0.35	n/a	0.55	
Proposed Action (Rail Spur)							
EQUIPMENT	TON-MILES	Emissions (lb/year)					
TYPE	PER YEAR	CO	NO <sub>x</sub>	PM-10	PM-2.5	SO <sub>2</sub>	VOC
Diesel Locomotive	170,624	25.0	254.3	6.3	6.1	1.8	9.9
Diesel CAT 3306 Generator	120 Hours	0.7	1.0	0.1	0.1	0.1	0.2
Diesel Semi Truck and Trailer	13 Miles	0.1	0.4	0.0	0.0	n/a	0.0
<b>TOTAL ESTIMATED EMISSIONS (lb/year)</b>		<b>25.8</b>	<b>255.7</b>	<b>6.4</b>	<b>6.2</b>	<b>1.9</b>	<b>10.1</b>
<b>TOTAL ESTIMATED EMISSIONS (tons/year)</b>		<b>0.01</b>	<b>0.13</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.01</b>
Emission factors based on EPA's Emission Factors for Locomotives, current as of 12/08/11,							
generator emissions from USEPA Office of Mobile Sources, Assessment and Modeling Division, June, 2008,							
and USEPA 2005 Emission Facts, which used EPA's MOBILE6 model.							
Estimated ton-miles based on rail alignments, and discussions with Bill Helmrich, US Navy							
Strategic Systems Program Office							
Generator hours from Tim Cowan, Director of Ammunition Operations, Camp Navajo							

**Table 6: Operational Air Emissions for the Proposed Action**

If required, prior to operating the proposed action, Hill AFB air quality managers would submit notices of intent, seven day notifications, and modification requests to DAQ. Hill AFB would not be allowed to operate the facilities until DAQ concurs that federal and state requirements are being met.

### Conformity Applicability Determination

Due to local non-attainment status, a conformity applicability determination (compliant with 40 CFR 93.153 and UAC R-307-115) was completed for the proposed action. The proposed action would be required to demonstrate conformity with the CAA unless an applicability determination

shows that it is exempt from conformity, in this case, due to having annual emissions below the thresholds established in 40 CFR 93.153(b)(1) and (b)(2). Predicted air emissions due to construction and due to operations were all much less than the established threshold values.

#### Indirect Effects

During scoping and the detailed analysis, no indirect effects related to air quality were identified for the proposed action.

#### Cumulative Effects

**Construction:** Construction-related air emissions would be limited to a duration of several months. Comparing the magnitude of predicted construction-related air emissions to existing emissions for Box Elder County (Table 2), there would not be significant cumulative effects to air quality associated with constructing the proposed action.

**Operations:** Comparing the magnitude of predicted operational air emissions to existing emissions for Salt Lake, Davis, Weber, and Box Elder Counties (Table 2), no significant cumulative effects to air quality were identified for operating the proposed action.

### **4.2.2 Predicted Effects to Solid and Hazardous Waste**

#### **4.2.2.1 Alternative A: No Action**

Transporting missile motors over highways would not be expected to generate solid or hazardous wastes. With respect to solid and hazardous waste, the no action alternative would have no direct effects, no indirect effects, and no cumulative effects.

#### **4.2.2.2 Alternative B: Proposed Action**

#### Direct Effects Due to Construction

**Waste Generation:** During the proposed construction activities, solid wastes expected to be generated would be construction debris consisting mainly of concrete, metal, and wood. These items would be treated as uncontaminated trash and recycled when feasible. It is possible that equipment failure or a spill of fuel, lubricants, or construction-related chemicals could generate solid or hazardous wastes. In the event of a spill of regulated materials, Hill AFB environmental managers and their contractors would comply with all federal, state, and local spill reporting and cleanup requirements.

**Waste Management:** Hill AFB personnel have specified procedures for handling construction-related solid and hazardous wastes in their engineering construction specifications. The procedures are stated in Section 01000, General Requirements, Part 1, General, Section 1.24, Environmental Protection. All solid non-hazardous waste is collected and disposed or recycled on a routine basis. Hazardous wastes are stored at sites operated in accordance with the requirements of 40 CFR 265. The regulations require the generator to characterize hazardous wastes with analyses or process knowledge. Suspect waste is labeled as hazardous waste and is safely stored while analytical results are pending or until sufficient generator knowledge is

obtained. Hazardous wastes are eventually labeled, transported, treated, and disposed in accordance with federal and state regulations.

***Excavated Soils:*** There is no known soil contamination within the proposed rail spur corridor. However, excavations could potentially encounter contaminated soil. If unusual odors or soil discoloration were to be observed during any excavation or trenching necessary to complete the proposed action, the soil would be stored on plastic sheeting and the Hill AFB Environmental Restoration Branch (75 CEG/CEVR) would be notified. Any soil determined to be hazardous would be eventually labeled, transported, treated, and disposed in accordance with federal and state regulations. No soil would be taken off UTTR (North Range) without prior 75 CEG/CEVR written approval.

#### *Direct Effects Due to Operations*

Transporting missile motors by rail and to the MSA via the transfer station would not be expected to generate solid or hazardous wastes.

#### *Indirect Effects*

During scoping and the detailed analysis, no indirect effects related to solid and hazardous waste were identified for the proposed action.

#### *Cumulative Effects*

During scoping and the detailed analysis, no significant cumulative effects related to solid and hazardous waste were identified for the proposed action.

### **4.2.3 Predicted Effects to Biological Resources**

#### **4.2.3.1 Alternative A: No Action**

Transporting missile motors over highways would not be expected to affect biological resources. With respect to biological resources, the no action alternative would have no direct effects, no indirect effects, and no cumulative effects.

#### **4.2.3.2 Alternative B: Proposed Action**

#### *Direct Effects Due to Construction*

- ***Construction:*** Clearing, grading, and providing vehicle access would disturb and/or have potential to disturb vegetation, kit foxes, bird SOC, and birds protected by the MBTA.
- ***Best Management Practices:*** Any habitat disturbed due to construction of access roads and staging areas would be restored by restoration planting of fire resistant plants, native grasses, and native shrubs as outlined in the *Hill AFB Integrated Natural Resources Management Plan* (Hill 2007b). Any habitat destroyed due to fires associated with the rail spur project would also be restored by following the guidelines in the *Hill AFB Integrated Natural Resources Management Plan* (Hill 2007b).

Protecting kit fox den sites beginning in March and continuing through July (when the pups disperse from the den) is critical to the survival of kit foxes. No construction activity would occur in the vicinity of the existing kit fox den between the first of March and the end of July. If additional kit fox dens were to be observed during construction, the Hill AFB Natural Resources Program would be notified, and the additional dens would also be avoided between the first of March and the end of July.

If any of the birds listed in Section 3.3.3 were to be observed nesting within the rail spur corridor during construction, the Hill AFB Natural Resources Program would be notified, and the nesting areas would be avoided during the nesting season. No taking, killing, or harassing any species of migratory bird, including raptors, would be allowed.

#### Direct Effects Due to Operations

Transporting missile motors by rail and to the MSA via the transfer station would not be expected to affect biological resources.

#### Indirect Effects

During scoping and the detailed analysis, no indirect effects related to biological resources were identified for the proposed action.

#### Cumulative Effects

Following the restoration activities discussed above, only a small portion of the 353 acres would remain disturbed by human activities. The rail spur would create a minor loss of habitat, displacing reptiles, avian species, and mammals. The individuals using this small area would be expected to move to other nearby areas to obtain food and shelter. When taken in aggregate, no significant cumulative effects to biological resources were identified.

### **4.2.4 Predicted Effects to Water Quality**

#### **4.2.4.1 Alternative A: No Action**

Transporting missile motors over highways would not be expected to affect water quality. With respect to water quality, the no action alternative would have no direct effects, no indirect effects, and no cumulative effects.

#### **4.2.4.2 Alternative B: Proposed Action**

#### Direct Effects Due to Construction

Based on information provided by Hill AFB, the land area to be disturbed by the proposed construction activities would be approximately 353 acres in size. Hill AFB construction specifications would require the contractor to restore the land to a non-erosive condition. The proposed action would be covered under Utah's general construction permit rule for stormwater compliance. Prior to initiating any construction activities, this permit must be obtained and erosion and sediment controls must be installed according to a stormwater pollution prevention

plan (SWPPP). The proponents would coordinate with the Hill AFB water quality manager (75CEV/CEGOC) for SWPPP approval prior to submitting an application for a Utah construction stormwater permit.

Construction activities for the proposed rail spur would not be expected to contact groundwater.

*Direct Effects Due to Operations*

Transporting missile motors by rail and to the MSA via the transfer station would not be expected to affect water quality.

*Indirect Effects*

During scoping and the detailed analysis, no indirect effects related to water quality were identified for the proposed action.

*Cumulative Effects*

Water quality would be protected during and after construction activities. There would be no significant cumulative water quality effects associated with the proposed action.

### 4.3 Summary Comparison of Predicted Environmental Effects

This section only applies to the alternatives considered in detail.

Issue	Alternative A No Action	Alternative B Proposed Action
Air Quality	Air emissions from operations would be less than 0.2 tons per year for each criteria pollutant as well as for VOCs.	Temporary air emissions from construction would be less than 14 tons for each criteria pollutant as well as for VOCs.  Air emissions from operations would be less than 0.2 tons per year for each criteria pollutant as well as for VOCs.  Conformity with the Clean Air Act was demonstrated.
Solid and Hazardous Waste	No effects were identified.	If contaminated soils are identified, they would be properly handled during the construction process. No effects were identified for operations.
Biological Resources	No effects were identified.	Related to construction, disturbed habitat would be restored. Kit fox dens, bird nesting sites, and birds protected by the MBTA would be protected. No effects were identified for operations.
Water Quality	No effects were identified.	Related to construction, water quality would be protected by implementing stormwater management practices. No effects were identified for operations.

**Table 7: Summary Comparison of Predicted Environmental Effects**



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## 7.0 REFERENCES

**CFR:** *Code of Federal Regulations*, US Government Printing Office, Office of the Federal Register, current versions, which are located at:

<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl>

29 CFR 1910, *Occupational Safety And Health Standards*

32 CFR 989, *Environmental Impact Analysis Process*

40 CFR 265, *Interim Status Standards For Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities*

40 CFR 1500-1508, *Council on Environmental Quality*

40 CFR 93.154, *Determining Conformity of Federal Actions to State or Federal Implementation Plans*

**DAQ 2011:** *Division of Air Quality Annual Report for 2010*, Utah Division of Air Quality, January, 2011.

**Hill AFB:** *Construction Specifications, Section 01000, General Requirements, Part 1, General, Section 1.24, Environmental Protection*, Hill AFB, current version.

**Hill 2007a:** *Integrated Cultural Resources Management Plan*, Hill AFB, 2007.

**Hill 2007b:** *Integrated Natural Resources Management Plan*, Hill AFB, 2007.

**P-III 2010:** *An Intensive Cultural Resources Inventory for the Utah Testing and Training Range Rail Spur Project in Box Elder County, Utah*, P-III Associates, Inc., September, 2010.

**US 2010:** *Treaty Between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms*, United States of America, April, 2010.

**USACE 2000:** *Technical Instructions, Railroad Design and Rehabilitation - TI 850-02*, USACE, April, 2000.

APPENDIX A  
CULTURAL RESOURCES FINDING OF NO EFFECT



## State of Utah

GARY R. HERBERT  
*Governor*

GREG BELL  
*Lieutenant Governor*

## Department of Community and Culture

JULIE FISHER  
*Executive Director*

### State History

WILSON G. MARTIN  
*Acting Director*

RECEIVED  
DEC 15 2011  
BY: JW

December 7, 2011

Robert T. Elliott, P.E., GS-14, DAF  
Chief, Environmental Management Division  
75 CEG/CEV  
7274 Wardleigh Road  
Hill Air Force Base Utah 84056-5137

RE: 14.6 Mile Long Railroad Spur in Box Elder County, Utah

In reply please refer to Case No. 11-2563

Dear Mr. Elliott:

The Utah State Historic Preservation Office received your request for our comment on the above referenced undertaking on November 23, 2011.

USHPO concurs with the Air Force determination of **No Historic Properties Affected, 36 CFR 800.4(d)(1).**

This letter serves as our comment on the determinations you have made, within the consultation process specified in §36CFR800.4. If you have questions, please contact me at 801-533-3555 or Jim Dykmann at 801-533-3523.

Sincerely,

Lori Hunsaker  
Deputy State Historic Preservation Officer  
Archaeology

CEV	CEVC	CEVP	✓
CEMR	HADE	PA	✓

orig: J. Hirschi

UTAH STATE  
HISTORY

UTAH STATE HISTORICAL SOCIETY  
ANTIQUITIES  
HISTORIC PRESERVATION  
RESEARCH CENTER & COLLECTIONS



DEPARTMENT OF THE AIR FORCE  
75TH CIVIL ENGINEER GROUP (AFMC)  
HILL AIR FORCE BASE UTAH

21 November 2011

Mr. Robert T. Elliott  
Chief, Environmental Management Division  
75 CEG/CEV  
7274 Wardleigh Road  
Hill Air Force Base Utah 84056-5137

Ms. Lori Hunsaker  
Deputy State Historic Preservation Officer  
300 Rio Grande  
Salt Lake City Utah 84101

Dear Ms. Hunsaker

Hill Air Force Base (AFB) is proposing to construct a 14.6 mile long railroad spur in Box Elder County, Utah. Approximately 0.95 mile is located on private land, 3.05 miles is located on land administered by the State of Utah School and Institutional Trust Lands Administration (SITLA), and the remainder of the spur (10.6 miles) is located on the Utah Test and Training Range-North (UTTR-North). The Area of Potential Effect (APE) is approximately 353 acres. After consultation with SITLA, Hill AFB has been designated the lead federal agency as specified in 36 CFR §800.2(a)(2).

P-III Associated, Inc. conducted a cultural resources inventory within the APE, as detailed in the enclosed report, *An Intensive Cultural Resources Inventory for the Utah Testing and Training Range Rail Spur Project in Box Elder County, Utah* (U-10-PD-0402m,s,p). Portions of the APE had been previously inventoried in relation to other projects and numerous sites were documented during these inventories, but none of those properties extend into the current APE. The current inventory resulted in the identification and documentation of one newly recorded prehistoric site on SITLA property, 42BO1777. P-III recommends it ineligible for listing on the National Register of Historic Places (NRHP).

Based on the attached report, Hill AFB, in consultation with SITLA, has determined 42BO1777 ineligible for listing on the NRHP. Therefore, Hill AFB has determined the proposed project will have no effect to historic properties [36 CFR §800.4(d)(1)]. I request your concurrence in these determinations as specified in 36 CFR §800. In addition, this consultation fulfills SITLA's responsibilities related to U.C.A. 9-8-404 for the survey area.



Should you or your staff have any questions regarding the proposed project, please feel free to contact our Archaeologist, Ms. Jaynie Hirschi, 75 CEG/CEVP, at (801) 775-6920 or at [jaynie.hirschi@hill.af.mil](mailto:jaynie.hirschi@hill.af.mil).

Sincerely

A handwritten signature in blue ink, reading "Robert Elliott", with a stylized flourish at the end.

ROBERT T. ELLIOTT, P.E., GS-14, DAF  
Chief, Environmental Management Division  
75th Civil Engineer Group

3 Attachments:

1. Completed SHPO Cover Sheet
2. Final Report, *An Intensive Cultural Resources Inventory for the Utah Testing and Training Range Rail Spur Project in Box Elder County, Utah* (U-10-PD-0402m,s,p)
3. 7.5' Series USGS Map

cc:

Ms. Lisa Beck, Archaeologist, SITLA  
Blackfeet Indian Tribe, w/o attachments  
Confederated Tribes of the Goshute Indian Reservation, w/o attachments  
Crow Tribe of Montana, w/o attachments  
Eastern Shoshone Tribe, w/o attachments  
Hopi Tribe, w/o attachments  
Navajo Nation, w/o attachments  
Northern Arapaho Tribe, w/o attachments  
Northwestern Band of the Shoshone Nation, w/o attachments  
Paiute Indian Tribe of Utah, w/o attachments  
Pueblo of Zuni, w/o attachments  
San Juan Southern Paiute Tribe, w/o attachments  
Shoshone-Bannock Tribes of the Fort Hall Reservation, w/o attachments  
Shoshone-Paiute Tribes of the Duck Valley Reservation, w/o attachments  
Skull Valley Band of Goshute Indians, w/o attachments  
Te-Moak Tribe of Western Shoshone Indians, w/o attachments  
Ute Indian Tribe, w/o attachments  
Ute Mountain Ute Tribe, w/o attachments  
Wells Band of Western Shoshone, w/o attachments

APPENDIX B  
RESPONSES FROM AMERICAN INDIAN TRIBES





DEPARTMENT OF THE AIR FORCE  
75TH CIVIL ENGINEER GROUP (AFMC)  
HILL AIR FORCE BASE UTAH

RECEIVED  
NOV 28 2011  
BY: *apm*

21 November 2011

Mr. Robert T. Elliott  
Chief, Environmental Management Division  
75 CEG/CEV  
7274 Wardleigh Road  
Hill Air Force Base Utah 84056-5137

Ms. Lori Hunsaker  
Deputy State Historic Preservation Officer  
300 Rio Grande  
Salt Lake City Utah 84101

Dear Ms. Hunsaker

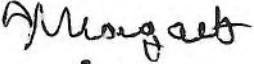
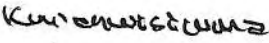
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Sincerely

Concur  
  
for  
  
12-2-11



ROBERT T. ELLIOTT, P.E., GS-14, DAF  
Chief, Environmental Management Division  
75th Civil Engineer Group

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Te-Moak Tribe of Western Shoshone Indians, w/o attachments  
Ute Indian Tribe, w/o attachments  
Ute Mountain Ute Tribe, w/o attachments  
Wells Band of Western Shoshone, w/o attachments

## **FINDING OF NO SIGNIFICANT IMPACT**

- 1. NAME OF ACTION:** Proposed Rail Spur, Utah Test and Training Range (UTTR).
- 2. DESCRIPTION OF THE PROPOSED ACTION:** Hill Air Force Base (AFB) proposes to construct a 14.6-mile long rail spur connecting the main railroad line at Lakeside, Utah to the missile storage area (MSA) at Oasis, UTTR (North Range). A transfer station would also be constructed, where missile motors would be moved from rail cars to trailers. Trucks would then haul the trailers over existing roads the final 0.2 miles to the MSA.

**3. SELECTION CRITERIA:**

The proposed action meets the following criteria:

- provide an efficient method of transporting 1,800 or more missile motors to the MSA at Oasis;
- comply with the new Strategic Arms Reduction Treaty (START);
- not encroach upon military training areas; and
- exhibit reasonable construction and operational characteristics.

**4. ALTERNATIVES CONSIDERED:**

Alternative A: No Action

A rail spur would not be constructed. Missile motors would be transported over highways in Salt Lake, Tooele, and Box Elder Counties, Utah.

Alternative B: Proposed Action

The rail spur and the related transfer station would be constructed.

Alternative C: More Direct Alignment From Lakeside to MSA

This alignment would pass through an area where water ponds during the winter and spring months. It did not meet the final selection criterion.

Alternative D: Alignment Adjacent to County Roads

This alignment exhibits a four percent grade over some sections of the route. It would violate United States Army Corps of Engineers (USACE) technical instructions. It did not meet the final selection criterion.

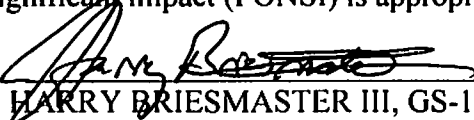
## 5. SUMMARY OF ANTICIPATED ENVIRONMENTAL EFFECTS:

This section only applies to the alternatives considered in detail.

Issue	Alternative A No Action	Alternative B Proposed Action
Air Quality	Air emissions from operations would be less than 0.2 tons per year for each criteria pollutant as well as for VOCs.	Temporary air emissions from construction would be less than 14 tons for each criteria pollutant as well as for VOCs.  Air emissions from operations would be less than 0.2 tons per year for each criteria pollutant as well as for VOCs.  Conformity with the Clean Air Act was demonstrated.
Solid and Hazardous Waste	No effects were identified.	If contaminated soils are identified, they would be properly handled during the construction process. No effects were identified for operations.
Biological Resources	No effects were identified.	Related to construction, disturbed habitat would be restored. Kit fox dens, bird nesting sites, and birds protected by the MBTA would be protected. No effects were identified for operations.
Water Quality	No effects were identified.	Related to construction, water quality would be protected by implementing stormwater management practices. No effects were identified for operations.

6. **FINDING OF NO SIGNIFICANT IMPACT:** Based on the above considerations, a finding of no significant impact (FONSI) is appropriate for this assessment.

Approved by:

  
HARRY BRIESMASTER III, GS-15, DAF  
Director, 75th Civil Engineer Group

Date:

15 Mar 12